

# Notice of Allowability

Application No.

10/520,856

Examiner

John P. Zimmermann

Applicant(s)

SAKAMOTO ET AL.

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Telephone Interview with Applicant's Attorney - 07 June 2007.
2. ☒ The allowed claim(s) is/are 1-3 and 5-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 07 June 2007.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
**PATRICK ASSOUD**  
**SUPERVISORY PATENT EXAMINER**

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David A. Tucker on 07 June 2007.

The application has been amended as follows:

a. **Claim 1** has been amended as follows:

1. (Currently Amended) An ink jet head comprising:

a plurality of ink chambers arranged like parallel grooves; walls separating said multiple ink chambers;

driving electrodes provided on said walls, said driving electrodes being exposed individually in said multiple ink chambers;

external circuit connecting electrodes provided individually for said multiple ink chambers for connecting said driving electrodes to an external circuit; and

electrically conductive material filled in each of said multiple ink chambers;

wherein said external circuit connecting electrodes are individually formed on exposed surface regions of the electrically conductive material filled in said ink chambers at a rear end portion of the head where individual strips of said electrically conductive material are exposed, and the area of each of said external circuit connecting electrodes is made larger than the cross-sectional area of each of said multiple ink chambers as measured in a groove width direction.

b. **Claim 6** has been amended as follows:

6. (Currently Amended) An ink jet head comprising:

a plurality of ink chambers arranged like parallel grooves; walls separating said multiple ink chambers;

driving electrodes provided on said walls, said driving electrodes being exposed individually in said multiple ink chambers;

external circuit connecting electrodes provided individually for said multiple ink chambers for connecting said driving electrodes to an external circuit; and

electrically conductive material filled in each of said multiple ink chambers;

wherein said external circuit connecting electrodes are individually formed on exposed

surface regions of the electrically conductive material filled in said ink chambers

at a rear end portion of the head where individual strips of said electrically

conductive material are exposed, and the area of each of said external circuit

connecting electrodes is made larger than the cross-sectional area of each of said

multiple ink chambers as measured in a groove width direction; and

wherein each of said external circuit connecting electrodes formed on said exposed

surface regions is electrically connected to said external circuit by at least 5

electrically conductive particles contained in anisotropic conductive material.

c. **Claim 4** has been cancelled.

d. Applicant's oral election of **claims 1-7** and further indication in the reply filed on 30 April 2007 is acknowledged. Additionally, by authorization of applicant's attorney, the previously withdrawn, nonelected **claims 8-10** have been cancelled.

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2. The examiner has approved the corrected drawings submitted on 30 April 2007, and the objection has been withdrawn.
3. The examiner has approved the amended specification to include the adoption of the suggested new Title of the Invention as submitted on 30 April 2007, and the objection has been withdrawn.
4. The examiner has approved the changes to the specification submitted on 30 April 2007.
5. **Claim 4** has been cancelled thereby rendering Applicant's amended claim, based on the Examiner's original objection, moot.
6. The following is an examiner's statement of reasons for allowance: The primary reason for allowance of the claims is the inclusion of the statement "of the electrically conductive material filled in said ink chambers" in the independent claims 1 & 6. Applicant's previously amended claims necessitated the citation of the newly found reference and appropriately the examiner's amendment incorporated the above statement thereby specifically stating the scope of the claims and ensuring the closest prior art does not teach or suggest the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Zimmermann whose telephone number is 571-270-3049. The examiner can normally be reached on Monday - Thursday, 7:00am - 5:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read "Patrick Assouad", with a stylized flourish at the end.

**PATRICK ASSOUD  
SUPERVISORY PATENT EXAMINER**